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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	PROGRID
Total Pages	
First Named Inventor or Application Identifier	Clement W. Bowman
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APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231

1. [ ] Fee Transmittal Form *(Submit an original, and a duplicate for fee processing)*
2. [X] Specification [Total Pages 25] *(preferred arrangement set forth below)*
   - Descriptive title of the Invention
   - Cross References to Related Applications
   - Statement Regarding Fed sponsored R & D
   - Reference to Microfiche Appendix
   - Background of the Invention
   - Brief Summary of the Invention
   - Brief Description of the Drawings *(if filed)*
   - Detailed Description
   - Claim(s)
   - Abstract of the Disclosure
3. [X] Drawing(s) *(35 USC 113)* [Total Sheets 15]
4. Oath or Declaration [Total Pages]
   - a. [ ] Newly executed (original or copy)
   - b [X] Copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional with Box 17 completed)* ***[Note Box 5 below]***
     - i. [ ] DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
5. [ ] Incorporation By Reference *(useable if Box 4b is checked)* The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. [ ] Microfiche Computer Program *(Appendix)*
7. Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all necessary)*
   - a. [ ] Computer Readable Copy
   - b. [ ] Paper Copy (identical to computer copy)
   - c. [ ] Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

8. [ ] Assignment Papers (cover sheet & document(s))
9. [ ] 37 CFR 3.73(b) Statement *(when there is an assignee)* [ ] Power of Attorney
10. [ ] English Translation Document *(if applicable)*
11. [ ] Information Disclosure Statement (IDS)/PTO-1449 [ ] Copies of IDS Citations
12. [ ] Preliminary Amendment
13. [X] Return Receipt Postcard (MPEP 503) *(Should be specifically itemized)*
14. [ ] Small Entity Statement(s) [ ] Statement filed in prior application, Status still proper and desired
15. [ ] Certified Copy of Priority Document(s) *(if foreign priority is claimed)*
16. [ ] Other: .....

17. **If a CONTINUING APPLICATION,** *check appropriate box and supply the requisite information:*
[ ] Continuation [ ] Divisional [X] Continuation-in-part (CIP) of prior application No. 08/418,152

18. CORRESPONDENCE ADDRESS

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COMPUTERIZED PROCESS FOR MEASURING THE VALUE OR PERFORMANCE OF AN ORGANIZATION OR INTANGIBLE ASSET

This application is a continuation-in-part of U.S. Patent Application Serial No. 08/418,152, filed March 20, 1995, the entire disclosure of which, including references incorporated therein, is incorporated herein by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates in general to processes used by consultants, analysts, and executives for evaluating intangible assets, and in particular to a system for providing a definitive measurement of the value or performance of a technology, an organization, or other intangible asset of interest.

2. Related Art

Systems have been known for producing a grid-type graphical representation of the relative value of two dependent variables. One example of such systems is known as the Risk Management Matrix, used by the Boston Consulting Group for portfolio analysis. The Risk Management Matrix uses "Relative Market Share" and "Growth" as the two axes on a four-quadrant grid. These terms represent cash generation and cash use, respectively, and thus two dependent variables are

represented on the axes of the grid. Such analyses are discussed in detail in "A Manager's Guide to Technology Forecasting and Strategic Analysis Methods," Stephen M. Millet and Edward J. Honton, Batelle Press, 1991, which is incorporated herein by reference. Further, methods of analysis such as the Risk Management Matrix are qualitative, and the grid axes are normally unscaled. Thus, the position of an intangible asset on such grids is not subject to quantitative analysis. As a result of all of the above, such systems produce a grid which is largely judgmental and arbitrary.

Another known system of analysis is the Blake Managerial Grid, discussed in detail in "The Managerial Grid," Robert R. Blake and Jane Mouton, Gulf Publishing Company, Library of Congress Number 64-14724, 1964, which is incorporated herein by reference. This grid is used to display different management styles, with one axis representing a concern for production and the other representing a concern for people. Different positions on the grid are used to represent different management approaches, ranging from autocratic to highly permissive. However, The Blake Managerial Grid, like the Risk Management Matrix, results in a positioning which is not arrived at through any disciplined procedure, is not subject to quantitative analysis, and is largely judgmental and arbitrary.

SUMMARY OF THE INVENTION

It is therefore an object of the invention to provide an improved system for measuring the value or performance of a technology, an organization, or other intangible asset of interest.

It is a further object of the invention to provide a computerized system for generating a chart showing the performance or value of an intangible asset.

The process of the invention provides a graphical illustration of the performance or value of an asset by (1) establishing first and second variables related to the value of the intangible asset of interest, (2) establishing a series of performance criteria statements probative of the value of the first and second variables, (3) using a computer to calculate first and second total scores based upon the extent to which individual statements accurately describe the intangible asset of interest, (4) using a computer to generate a chart having a first axis relating to the first variable and a second axis relating to the second variable, (5) using a computer to plot a point on the chart, the point being located at coordinates corresponding to the first and second total scores, respectively, and (6) using the chart in making at least one decision regarding the value of said intangible asset of interest.

The process of the invention according to a preferred embodiment provides a valuation grid which can be a means for performing, e.g., a quantitative comparison of organizations of a given class, a comparative analysis of various technological

assets for venture capital pools, or a quantitative positioning of the level of achievement of an organization with respect to the vision and mission established by its owners.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other objects, features, and advantages of the invention will be apparent from the following more particular description of preferred embodiments as illustrated in the accompanying drawings. The drawings are not necessarily to scale, emphasis instead being placed upon illustrating principles of the invention.

FIG. 1(a) illustrates a matrix of performance areas reflecting the value or performance of a for-profit company.

FIG. 1(b) illustrates a matrix of performance areas reflecting the value or performance of a research and development organization.

FIG. 1(c) illustrates a matrix of performance areas reflecting the value or performance of a university.

FIG. 1(d) illustrates a matrix of performance areas reflecting the value of a technical asset.

FIG. 2 illustrates examples of performance criteria for cell B2 of the matrix shown in FIG. 1(d).

FIG. 3 illustrates a performance criteria scoring form.

FIGS. 4a and 4b illustrate a valuation grid produced according to the process of the invention.

Figure 4(c) illustrates a series of intangible assets ranked by their position on a valuation grid.

FIG. 5 is a table illustrating names and definitions for grid positions in valuation grids for various organizations and assets.

FIG. 6 is a graphical representation of performance area scores created according to the system of the invention.

FIG. 7 is a screenshot showing an example of a user input page for data collection according to the invention.

FIG. 8 is a valuation grid showing approximately 150 individual intangible assets valued according to the process of the invention.

FIG. 9 shows a table illustrating the results of a computer calculation of the evaluation of a technology for treating mineral ores to improve their separation.

FIG. 10 shows a computer-generated chart illustrating a valuation grid with current and future chart positions.

FIG. 11 shows a computer-generated bar chart with current ratings for performance clusters

FIG. 12 shows a computer-generated bar chart with future ratings for performance clusters.

DETAILED DESCRIPTION OF THE INVENTION

The performance or value of an organization, technology, or other intangible asset can depend on, and be described in terms of, two or more independent variables. The first step in carrying out the process of the invention is to define at least two independent variables which best reflect such performance or value of the particular organization or asset under analysis. For example, the value of a particular technology or technical asset can be understood in terms of its commercial strength versus its technical strength; the value or position of a university can be

understood in terms of its teaching excellence versus its research excellence; the value of a research and development organization can be described in terms of its short-term performance versus its long-term performance; and, the value of a private sector company can be understood in terms of the strength of today's business versus the strength of tomorrow's business. The particular pair of independent variables, including but not limited to those pairs listed above, should be selected according to the type of organization or asset to be evaluated.

For purposes of illustrating the principles of the present invention, the embodiments described herein utilize two independent variables in implementing a valuation; however, it will be appreciated by those skilled in the art that a number of variables greater than two could be utilized without departing from the spirit and scope of the invention.

Once the first step of selecting at least two independent variables has been performed, the second step according to the process of the invention is to establish a series of performance criteria statements probative of the value of the first and second variables. This preferably begins with creation of an array, or matrix, of performance areas, i.e., areas which are considered to be important in evaluating the organization or asset. Examples of performance matrices for various organizations and assets are shown in FIGS. 1a-1d. As will be noted from the figures, the columns A, B, C, etc. preferably vary in either time, spatial, or geographical focus. On the other hand, the rows 1, 2, 3, etc., preferably reflect specific areas of activity or focus.

A number of performance criteria, including performance statements, are then created for each cell in the performance matrix. FIG. 2 illustrates four performance criteria relating to the performance area in cell B2 (Proprietary Strength) of the performance matrix shown in FIG. 1(d). Each of the four statements for one criterion indicates a different level of strength in the performance area to which the criterion relates. As will be discussed in more detail below, the process of the invention according to a preferred embodiment includes a subsequent step in which an evaluator selects, from among the three or four statements for each of the criteria, the one statement which most accurately describes the organization or asset being assessed.

As illustrated in FIG. 2, all of the performance criteria relating to the "proprietary strength" performance area are grouped together; however, it may be preferable in some cases to scramble the criteria so that performance criteria relating to one performance area are interspersed with performance criteria relating to other performance areas. Such scrambling can avoid bias during the subsequent selection step.

The performance criteria can be defined by persons with extensive experience in the type of organization or asset being evaluated, or can be selected from a data base of previously-established matrices for similar organizations.

The performance statements preferably have rating levels and axis-weighting factors associated with them. With respect to rating levels, these are identified in FIG. 2 as rating levels 1, 2, 3 and 4 along the top row of the chart. In the example shown in FIG. 2, statements which reflect a low degree of proprietary strength are assigned a rating level of 0, statements which reflect a moderate degree of proprietary strength are assigned a rating level of 1, statements which reflect a high degree of proprietary strength are assigned a rating level of 2, and statements which reflect an outstanding degree of proprietary strength are assigned a rating level of 3. If only one statement is used for each performance criteria, it is preferable to assign to it the highest rating level, and a range of numbers used to reflect how close the organization or asset meets the conditions of that statement. For example, an evaluator could be given a series of single statements and be asked to rate each statement on a scale of 0 to 3, with a rating of zero indicating a low level of compliance with the statement by the organization/intangible asset and a rating of 3 indicating a high level of such compliance. However, the four-statement method, as shown in FIG. 2, is preferred for most applications.

With respect to assignment of axis-weighting factors, this is necessary for accurately plotting the orthogonal relationship between the two independent variables selected above in step 1. Assignment of axis-weighting factors for each of the criteria serves to apportion the rating level of that criteria to the X-axis and Y-axis, respectively. The two right-hand columns in FIG. 2 illustrate assigned weighting factors. The preferred method of performing the assignment is to apportion the value of unity between the two axes; for example, assigning a

weighting factor of 1.0 to the X-axis and a weighting factor of 0.0 to the Y-axis would indicate that the criteria contributed entirely to X-axis performance. Likewise, assigning 0.0 to the X-axis and 1.0 to the Y-axis would indicate that the criteria contributed entirely to Y-axis performance; and, assigning 0.5 to each of the axes would indicate that the contribution was equally divided between the two axes.

The third step is to undertake the assessment and calculate scores for each of the independent variables. An evaluator is given a complete set of forms similar to that shown in FIG. 2, but with criteria for each of the performance areas on the appropriate performance matrix, and he selects (e.g., by circling) for each of the criteria the one statement which best describes the organization or asset being evaluated. The assessment may be undertaken by a range of stakeholders, such as the staff of an organization at various organizational levels, the owners, key clients, or alliance partners.

Once the assessment has been undertaken, the results are preferably compiled in a form as shown in FIG. 3. In the example of FIG. 3, there are 37 criteria for the nine performance areas shown in FIG. 1d. In this particular example, a four-level rating was used, with a numerical rating of 0 assigned to statements which reflect the lowest performance in the corresponding performance area, a numerical rating of 1 assigned to statements which reflect a moderate performance in the performance area, a numerical rating of 2 assigned to statements which reflect a high performance in the performance area, and a numerical rating of 3 assigned to statements which reflect an outstanding performance in the

performance area. In this example, the evaluators are requested to use letters A, B, C, and D to represent the four performance levels. The computer program converts these four letters to the corresponding numerical values. This procedure avoids disclosing the numerical values to the evaluators to further minimize bias.

For each criteria, the rating level of the statement selected is multiplied by the X-axis weight to obtain the X-axis contribution, and by the Y-axis weight to obtain the Y-axis contribution. The X-axis contributions are summed and the Y-axis contributions are summed; the resulting totals are shown at the bottom right of the form in FIG. 3. In the example of FIG. 3, the X total is 25.0 out of a maximum of 58.2 (19.4 times 3), and the Y total is 24.0 out of a maximum of 52.8 (17.6 times 3).

The fourth step is to plot the X-axis total and the Y-axis total on an evaluation grid, with the independent variables as axes. FIG. 4(a) illustrates such an evaluation grid resulting from application of the process of the invention to a research and development organization. The grid shown in FIG. 4(a) comprises a ten-point scale; thus, the total values obtained above of 25.0 for the X-axis and 24.0 for the Y-axis correspond to plot positions of 4.3 and 4.5, respectively, on the grid.

To make the graphical illustration shown in FIG. 4(a) more meaningful, it is preferable to assign names to each of the four quadrants in the evaluation grid. In FIG. 4(a), the quadrants are assigned the names "Specialty", "Pacesetter", "Commodity", and "Not Ready". FIG. 5 illustrates names and definitions

associated with the quadrants in four types of evaluation grids.

A valuation grid for a technology would show the positioning of the technology in one of the four quadrants, e.g., "Specialty" in an upper left quadrant, "Pacesetter" in an upper right quadrant, "Commodity" in a lower right quadrant, and "Not Ready" in a lower left quadrant. At the inception of a new idea, the technology may be considered to lie at the origin. As the idea matures into a bona fide technology, it will follow a trajectory through the "Not Ready" quadrant to one of the other three quadrants. If the technology follows a forty-five degree diagonal, this indicates that technical and market developments are proceeding in parallel. If the market develops faster than the technology, the trajectory will move into the "Commodity" quadrant; conversely, if technical progress proceeds faster than market development, the trajectory will move into the "Specialty" quadrant. The position in which the trajectory terminates determines the overall merits of the technology. The higher the trajectory proceeds into the "Pacesetter" quadrant, the more likely it is that there will be a high level of commercial success.

The four-quadrant grid is useful for obtaining an overall view of the status of a technology. However, a more insightful display of the status is shown in Figure 4b, in which the four-quadrant boundaries are replaced by three curves that are concentric with the point 10,10. Points that lie on one of these curves have different combinations of technical and commercial strength but have the same distance to "travel" to reach the upper right hand corner of the grid. With this display, zones between the curves can be described as "Embryonic", "Emerging",

"Developing" and "Ready for Commercialization". A factor "R" can be defined which is the progress a technology has achieved as it travels from inception (0,0) to fully developed (10,10). Mathematically this factor is equal to:

(SQRT(200)-SQRT((X-10)^2+(Y-10)^2))/SQRT(200)

The R factor can be used to rank a set of technologies, or any other intangible asset, as shown in Figure 4c. Ten technologies which have different X, Y values and therefore different R values are compared and sorted.

It is also useful to create a chart showing the scores for each of the performance areas. Such a chart is illustrated in FIG. 6. This step provides a more-detailed graphical representation of the information represented in the evaluation grid by identifying the specific strengths and weaknesses of the organization or asset being evaluated. If the performance criteria have been scrambled as described above with regard to the third step, it may be necessary to unscramble the criteria in order to obtain scores for each performance area.

The invention may be practiced by means of computer hardware and software. The following example shows a process which uses a computer program or programs for the evaluation of an actual technological asset of interest to a venture capital company, but it will be understood by those skilled in the art that the disclosed process could be applied to other evaluations, particularly those disclosed herein. The example below shows the complete process of the invention according to a preferred embodiment, including the initial steps of collecting and entering of

data, the computer calculation, and the production of the charts. It also includes an application of the invention for determining the future value of the asset in addition to determination of an asset's present value as discussed above.

Data collection may be accomplished manually or via computer hardware and software, such as by world-wide web pages or other interface which presents users with performance criteria and receives user-input regarding the extent to which individual statements accurately describe an intangible asset of interest. FIG. 7 provides an example of a user input page which is accessible electronically by a user, either by entry on or downloading from an internet web site or through direct e-mail transfer. In this respect, the form of FIG. 7 may be provided via an HTML form, a database data entry form (such as an MS Access form), or other suitable data entry means.

The form of FIG. 7 provides for the entry of a) identification information concerning the intangible asset, in this case a proposal for funding a project submitted to a venture capital fund, b) the ratings of the applicant, and c) the ratings of five reviewers. In this example, there are seven sets of statements relating to seven performance areas, with four possible ratings in each ranging from a low performance (A) to a high performance (D).

Once the performance criteria data is collected, calculations can be made on the data using computer hardware and software. Such calculations include, e.g., summing of scores, application of axis weighting factors, and generation of data

describing a valuation grid and a point thereon. A preferred method of making the calculations is to integrate three computer modules-- the data entry form shown in FIG. 7, a spreadsheet for carrying out the detailed calculations and plotting the results of the calculations, and a spreadsheet for comparing, ranking and plotting the data for a number of separate intangible assets. The spreadsheet for calculating and plotting and the spreadsheet for ranking and plotting may be provided in the form of, e.g., spreadsheets in the MS Excel format. This integration of the modules can be accomplished such that once the data has been entered in the data entry form, the subsequent calculations, plotting and printing of the results is performed automatically.

The comparison and ranking of a number of intangible assets is an important feature of the invention. An example of this ranking is shown in FIG. 8 for proposals submitted to a funding agency by plotting the X and Y coordinates of the average results of reviewers who have examined and rated the proposals.

The future value of an intangible asset can be determined by rerunning the calculation using new rating levels, determined through a code in the format x, y, z where x is the number of performance criteria improvement steps which the asset is likely to achieve if its current position is at the lowest performance level, y is the number of performance criteria improvement steps that the asset is likely to achieve if its current position is at the next highest performance level, and z is the number of performance criteria improvement steps the asset is likely to achieve if its current position is at the next highest performance level. The values x, y z are determined

based on the best judgment of those with experience in the development and commercialization of technology. Once determined, the x, y, z values are kept constant until experience shows a change is appropriate. This procedure will become apparent by inspecting the following example. It should be noted that a database can be established with data from repetitive applications of the method of the invention over time. The provision of such database permits modification of the initial x, y, and z values to more accurately reflect the number of improvement steps achieved in practice, whereby a "self-learning" attribute can be provided by the invention.

FIG. 9 shows the results of a computer calculation of the evaluation of a technology for treating mineral ores to improve their separation. Columns 1, 8, and 14 show the performance criteria number. Column 2 is a letter chosen to represent the performance criteria statement selected by the evaluators (A, B, C, or D). Column 3 transforms the letters into a numerical performance rating (0, 1, 2, or 3). Columns 4 and 5 are the X-axis and Y-axis weight factors. Columns 6 and 7 are the calculated X and Y values for each performance criteria, which are totaled to produce the (X, Y) plotting coordinates. In columns 8 to 13, this procedure is repeated using a maximum performance rating (MS) that is calculated in columns 14 to 19. Column 15 is a repeat of the performance rating (column 3).

The code for calculating the maximum performance rating is shown in columns 16 to 18. Column 19 is the maximum performance rating, which is copied to column 9. As an example of this calculation, the performance rating for criteria

1 is 1. The code in columns 16 to 18 is 2, 1, 1, which means that if the performance rating is 0, the future rating will increase by 2, if the performance rating is 1, it will increase by 1, and if the performance rating is 2, it will increase by 1. Since the performance rating is 1, the maximum performance rating is 1+1 = 2. At the bottom of Fig. 9, the scores are grouped into performance clusters and expressed as a percentage of the highest rating obtainable.

Figures 10, 11 and 12 show the current and future chart positions and the current and future ratings for the performance clusters. Gate lines are shown in Fig. 10 to separate the chart into zones representing the maturity of the technology. By comparing Figs. 11 and 12, the venture capital manager is able to identify the areas where improved performance is required and the likelihood that this improvement can be achieved.

Once a chart such as one shown in FIGS. 4(b) or 10 is created, the final step is to interpret the results for purposes of making decisions regarding the value of the intangible asset or organization. Such decisions include, e.g., whether to invest capital in a technology, how to develop a strategic plan to optimize an asset's future value, which programs to fund among competing programs within an organization, and whether an organization has met a level of achievement set forth in a mission established by its owners.

Depending upon which evaluators have undertaken the analysis, various conclusions can be drawn from the results, and those conclusions can be of

importance to various stakeholders. Regarding the four particular types of organizations/assets described herein (i.e., a company, a research and development organization, a university, and a technology), the process of the invention provides quantitative information in at least the following areas.

With respect to companies, managers of companies are expected to manage the current business activities of the company in an efficient and cost-effective manner, and at the same time ensure long-term survival of the company by developing new business opportunities to replace maturing and aging products and markets; the process of the invention quantitatively identifies how well the company has met these two objectives.

With respect to research and development organizations, the owners and managers of such organizations must meet the short-term needs of their clients, and also renew their intellectual capital through longer-term scientific and technological investigations, making the large transformations needed to create future business opportunities; the process of the invention will identify how successful the managers have been in meeting these objectives.

With respect to universities, such institutions differ in their respective emphasis on research and teaching; the process of the invention makes it possible to measure their performance with respect to these sometimes-competing responsibilities and to achieve the balance desired by the Board of Governors.

With respect to technologies, technology commercialization is made difficult by the high risks involved in introducing new ideas into the marketplace. The process of the invention provides a measurement of the technical and commercial readiness of new technologies and enables investors to choose between competing proposals.

While the invention has been particularly shown and described with reference to a preferred embodiment thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the invention. For example, a system having four statements per performance criteria has been illustrated above. However, in some applications, a different number of statements may be desired for either simplicity or enhanced rigor.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A method of manufacturing a chart reflecting the value of an intangible asset of interest, comprising the steps of:

establishing first and second variables related to the value of said intangible asset of interest;

establishing a series of performance criteria statements probative of the value of said first and second variables;

scoring each of said performance criteria statements;

summing a plurality of scores obtained by said scoring step to generate first and second total scores based upon the extent to which individual statements accurately describe said intangible asset of interest;

transforming physical media into a chart having a first axis relating to said first variable and a second axis relating to said second variable;

physically plotting a point on said chart, said point being located at coordinates corresponding to said first and second total scores, respectively; and,

using said chart in making at least one decision regarding the value of said intangible asset of interest.

2. The method of claim 1, wherein said generating step comprises the steps of:

choosing, from sets of performance criteria statements in said series, individual statements which most accurately describe said intangible asset of interest;

determining, for each said set of performance criteria statements, first and second scores based at least in part on the particular statement chosen from the set,

said first and second scores relating to said first and second variables, respectively;

summing a plurality of said first scores to obtain a first total score relating to said first variable; and,

summing a plurality of said second scores to obtain a second total score relating to said second variable.

3. The method of claim 1, further comprising the steps of:

assigning to each said performance criteria statement first and second weighting factors reflecting an extent of impact of said statement on said value of said first and second variables, respectively;

using said weighting factors in determining said first and second total scores.

4. The method of claim 1, further comprising the step of:

placing a label in each of four quadrants of said chart, or in such other zones in which said chart may be divided, each label representing the extent to which points in a quadrant reflect a balance between said first and second variables.

5. The method according to claim 1, wherein said first and second variables comprise two independent variables.

6. The method according to claim 1, wherein said intangible asset of interest comprises a technological asset and wherein said first variable comprises commercial strength.

7. The method according to claim 1, wherein said intangible asset of interest comprises a technological asset and wherein said second variable comprises technical strength.

8. The method according to claim 1, wherein said intangible asset of interest comprises a technological asset and wherein said first variable comprises commercial strength and said second variable comprises technical strength.

9. The method according to claim 1, wherein said intangible asset of interest comprises a research and development organization and wherein said first variable comprises short-term performance.

10. The method according to claim 1, wherein said intangible asset of interest comprises a research and development organization and wherein said second variable comprises long-term performance.

11. The method according to claim 1, wherein said intangible asset of interest comprises a research and development organization and wherein said first variable comprises short-term performance and said second variable comprises long-term performance.

12. The method according to claim 1, wherein said intangible asset of interest comprises a university and wherein said first variable comprises research excellence.

13. The method according to claim 1, wherein said intangible asset of interest comprises a university and wherein said second variable comprises teaching excellence.

14. The method according to claim 1, wherein said intangible asset of interest comprises a university and wherein said first variable comprises research excellence and said second variable comprises teaching excellence.

15. The method according to claim 1, wherein said intangible asset of interest comprises a private-sector company and wherein said first variable comprises the strength of today's business.

16. The method according to claim 1, wherein said intangible asset of interest comprises a private-sector company and wherein said second variable comprises tomorrow's business.

17. The method according to claim 1, wherein said intangible asset of interest comprises a private-sector company and wherein said first variable comprises the strength of today's business and said second variable comprises the strength of tomorrow's business.

18. A chart for providing a graphical indication of the value of an intangible asset of interest, wherein said chart is created according to the method of claim 1.

19. The method according to claim 1, further comprising the steps of:

calculating the future value of an intangible asset by iterating said scoring, summing, transforming, and plotting steps using new rating levels, determined through a code in the format x, y, z where x is a number of improvement steps which the asset is likely to achieve if its current position is at a lowest performance level, y is a number of improvement steps that the asset is likely to achieve if its current position is at a next highest performance level, and z is a number of improvement steps the asset is likely to achieve if its current position is at a next highest performance level.

20. The method according to claim 1, further comprising the steps of:

repeating said steps of establishing, scoring, summing, transforming, and plotting for a plurality of intangible assets of interest, whereby said chart is caused to show a plurality of points corresponding to said plurality of intangible assets of interest.

ABSTRACT OF THE DISCLOSURE

A computerized process for measuring the value or performance of an organization or intangible asset provides a graphical illustration of the performance or value of an asset by (1) establishing first and second variables related to the value of the intangible asset of interest, (2) establishing a series of performance criteria statements probative of the value of the first and second variables, (3) using a computer to calculate first and second total scores based upon the extent to which individual statements accurately describe the intangible asset of interest, (4) using a computer to generate a chart having a first axis relating to the first variable and a second axis relating to the second variable, (5) using a computer to plot a point on the chart, the point being located at coordinates corresponding to the first and second total scores, respectively, and (6) using the chart in making at least one decision regarding the value of said intangible asset of interest.

Company				
	A Organization Purpose	B Governance	C Business Assets	D Intellectual Capital
1	The Vision	The Organization	The Products	Human Resources
2	The Opportunity	The Team	The Market	Codified Capital
3	The Plan	The Tools	The Financials	Relationships

FIG. 1(a)

R&D Organization			
	A Setting the Stage	B Undertaking the Task	C Making the Impact
1	Vision Mission Mandate	Business Relevance	Technology Acquisition/ Transfer
2	Human Resources	Program Management	Corporate Impact
3	Lifelong Learning	Performance Measurement	Public/ Community Impact

FIG. 1(b)

University			
	A Undergraduate Programs	B Graduate And Research Programs	C External Linkages
1	Undergraduate Curriculum	Graduate Program	Links Within The University
2	Undergraduate Student Relations	Research Program	Links To Other National And International Institutions
3	Staff Development	Research Support	Links To Industry And The Community

FIG. 1(c)

Technical Asset			
	A Scientific Strength	B Technological Strength	C Commercial Strength
1	Technical Framework	Commercial Readiness	Market Characteristics
2	Level of Verification	Proprietary Strength	Margin and Profit Potential
3	Excellence of Project Team	Technological Durability	Commercialization Channels

FIG. 1(d)

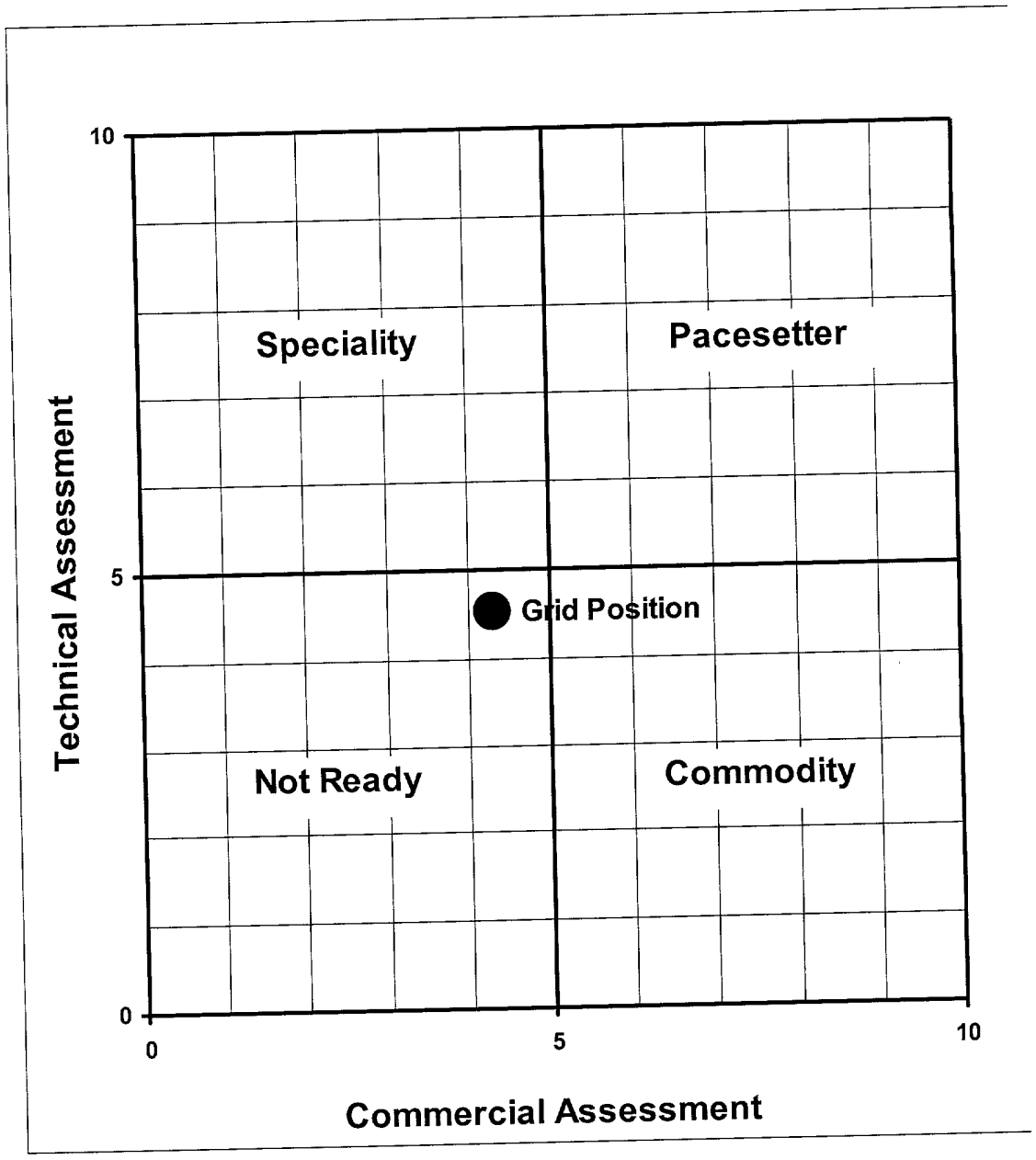
Performance Area	No.	Rating Level 1	Rating Level 2	Rating Level 3	Rating Level 4	X	Y
Proprietary Strength	**1**	Patent protection on the technology is not planned and/or is not feasible.	Patent disclosures and/or applications have been or could be prepared, but it is uncertain whether there is sufficient novelty to support strong claims.	Patent applications have been submitted to the US and/or other appropriate patent offices. The principal claims are viewed as strong and acceptance by the patent offices is anticipated.	The technology is well protected by strong process and/or product patents, with extensive geographic coverage.	**a**	**1-a**
	2	There is a dominant IP position in this field held by other parties.	The technology is in a competitive environment with essentially no significant IP position likely to held by any party.	The technology is in an active field but appears to have the potential to fill a significant IP gap.	The technology is in a relatively virgin field with ample opportunities for strong IP protection.	**b**	**1-b**
	3	The technology will not have any specific trade-mark designation and the marketing approach will have to rely on the intrinsic value of the technology.	Although a distinguishing trademark for the technology is not feasible, it belongs to a family of well-recognized commercial products or services and will benefit from this association.	Attaining a distinguishable trademark for the technology is feasible and should facilitate market introduction.	The technology has its own distinguishable trademark that will significantly increase market acceptability.	**c**	**1-c**
	4	No specific know-how is required to commercialize the technology, or if required, has been publicly disclosed.	Some specific, but not overly complex, know-how is required to commercialize the technology. Actions such as confidentiality agreements will be needed to maintain a proprietary advantage.	The technology as publicly disclosed will be difficult to apply commercially without the know-how of the developers.	The technology requires a high level of know-how in its application and it will be almost impossible to apply commercially without this knowledge.	**d**	**1-d**
	5	Gradual improvements to the technology will probably occur through further development, which may extend its life but unlikely its application or market share.	Gradual improvements to the technology will probably occur through further development and these should extend its application and market share.	The technology is at an early point in the maturity curve and significant improvements are likely which will have major business impacts.	The technology is at an early point in the maturity curve and significant improvements are likely which will have major business impacts. There is a high probability of valuable additional intellectual property protection.	**e**	**1-e**
						Sum X	**Sum Y**

FIG. 2

Criteria	Letter Rating	Number Rating	X Wt.	Y Wt.	X	Y
1	B	1	0.0	1.0	0.0	1.0
2	D	3	0.0	1.0	0.0	3.0
3	C	2	0.0	1.0	0.0	2.0
4	A	0	0.2	0.8	0.0	0.0
5	B	1	0.0	1.0	0.0	1.0
6	A	0	0.2	0.8	0.0	0.0
7	B	1	0.2	0.8	0.2	0.8
8	C	2	0.0	1.0	0.0	2.0
9	B	1	0.2	0.8	0.2	0.8
10	B	1	0.2	0.8	0.2	0.8
11	B	1	0.5	0.5	0.5	0.5
12	A	0	0.2	0.8	0.0	0.0
13	B	1	0.2	0.8	0.2	0.8
14	C	2	0.8	0.2	1.6	0.4
15	C	2	0.8	0.2	1.6	0.4
16	C	2	1.0	0.0	2.0	0.0
17	B	1	0.2	0.8	0.2	0.8
18	D	3	0.5	0.5	1.5	1.5
19	B	1	0.8	0.2	0.8	0.2
20	B	1	0.2	0.8	0.2	0.8
21	C	2	0.2	0.8	0.4	1.6
22	D	3	0.2	0.8	0.6	2.4
23	C	2	0.2	0.8	0.4	1.6
24	B	1	1.0	0.0	1.0	0.0
25	B	1	1.0	0.0	1.0	0.0
26	C	2	1.0	0.0	2.0	0.0
27	B	1	1.0	0.0	1.0	0.0
28	C	2	0.8	0.2	1.6	0.4
29	B	1	0.2	0.8	0.2	0.8
30	B	1	0.8	0.2	0.8	0.2
31	C	2	1.0	0.0	2.0	0.0
32	C	2	1.0	0.0	2.0	0.0
33	B	1	1.0	0.0	1.0	0.0
34	B	1	1.0	0.0	1.0	0.0
35	A	0	1.0	0.0	0.0	0.0
36	A	0	1.0	0.0	0.0	0.0
37	B	1	0.8	0.2	0.8	0.2
Total			19.4	17.6	25.0	24.0

FIG. 3

09/04/2003 10:42:29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5
0
0
5
10
Technical Assessment
Commercial Assessment
Speciality
Pacesetter
Grid Position
Not Ready
Commodity

Fig. 4a

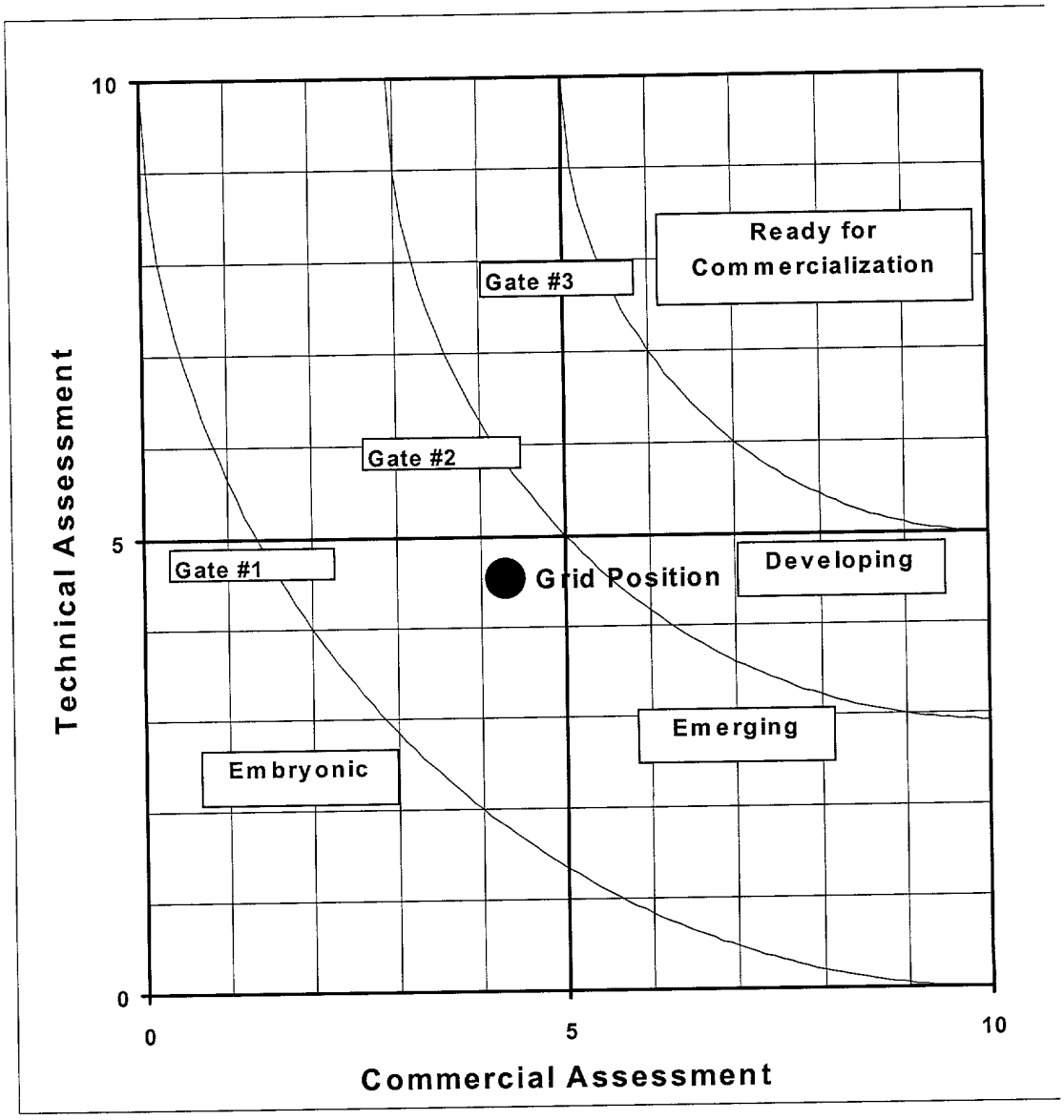

10
5
0
0
5
10
Technical Assessment
Commercial Assessment
Ready for Commercialization
Gate #3
Gate #2
Gate #1
Grid Position
Developing
Emerging
Embryonic

Fig. 4b

Tech. #	X	Y	R
7	7.4	7.6	75.0%
10	6.9	7.9	73.5%
8	6.4	7.6	69.4%
3	7.2	5.9	64.9%
9	5.2	7.0	60.0%
1	6.7	5.3	59.4%
6	6.7	5.2	58.8%
4	6.0	5.5	57.4%
2	4.8	4.4	46.0%
5	2.9	3.1	30.0%

Fig 4c

Application	Quadrant	Ultimate Grid Position	Definition
Company	Market Leader	10, 0	Current products and services dominate the market; there is no emphasis on developing new products and services.
	Innovator	0, 10	New products and services are being developed, with little effort towards defining or creating a market demand.
	Pacesetter	10, 10	Well balanced company, a market leader with current products and services, having active programs to develop new customers, new products and new services.
	Still Evolving	0, 0	
R&D Organization	Improver	10, 0	Meets the technical needs of current customers, with effective continuous improvement programs.
	Transformer	0, 10	Developer of major new processes and products, and/or extending the boundaries of science, with no immediate market connection.
	Pacesetter	10, 10	Well balanced organization, effective in meeting the needs of current clients, but constantly developing an searching for new clients, new products and new services.
	Still Evolving	0, 0	
University	Teaching University	10, 0	University well recognized for exceptional skills in teaching.
	Research Institute	0, 10	Research institute with a university style structure bu exclusively focused on research and extending the boundaries of knowledge.
	Research University	10, 10	University which has effectively coupled its teaching and research skills.
	Still Evolving	0, 0	
Technical Asset	Commodity	10, 0	A product or service having high current market acceptance with minimum technical content.
	Specialty	0, 10	A highly technical product or service which has an ill defined or small existing or potential market.
	Pacesetter	10, 10	A highly technical product or service that has or is expected to have a major market impact.
	Not Ready	0, 0	

Fig. 5

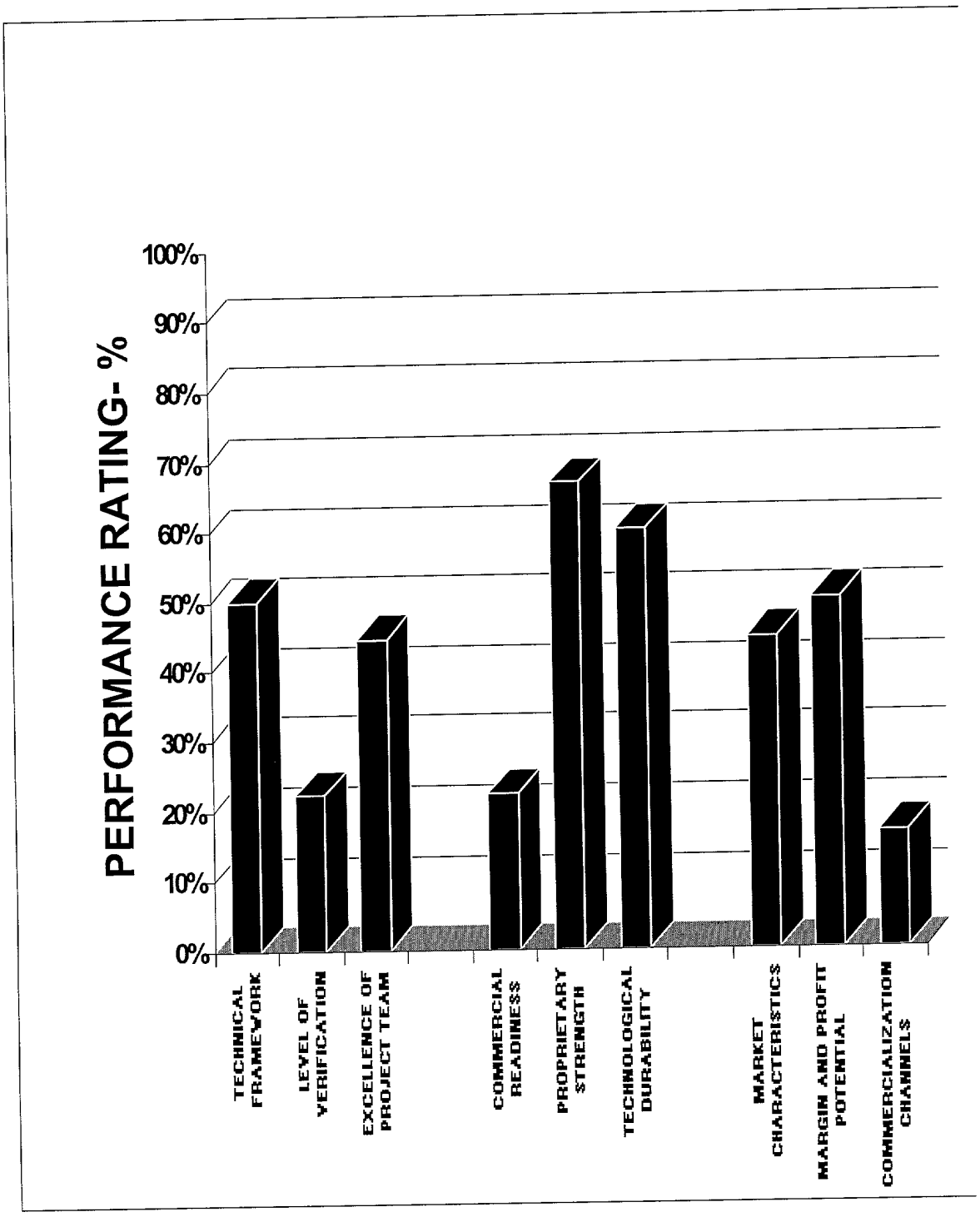
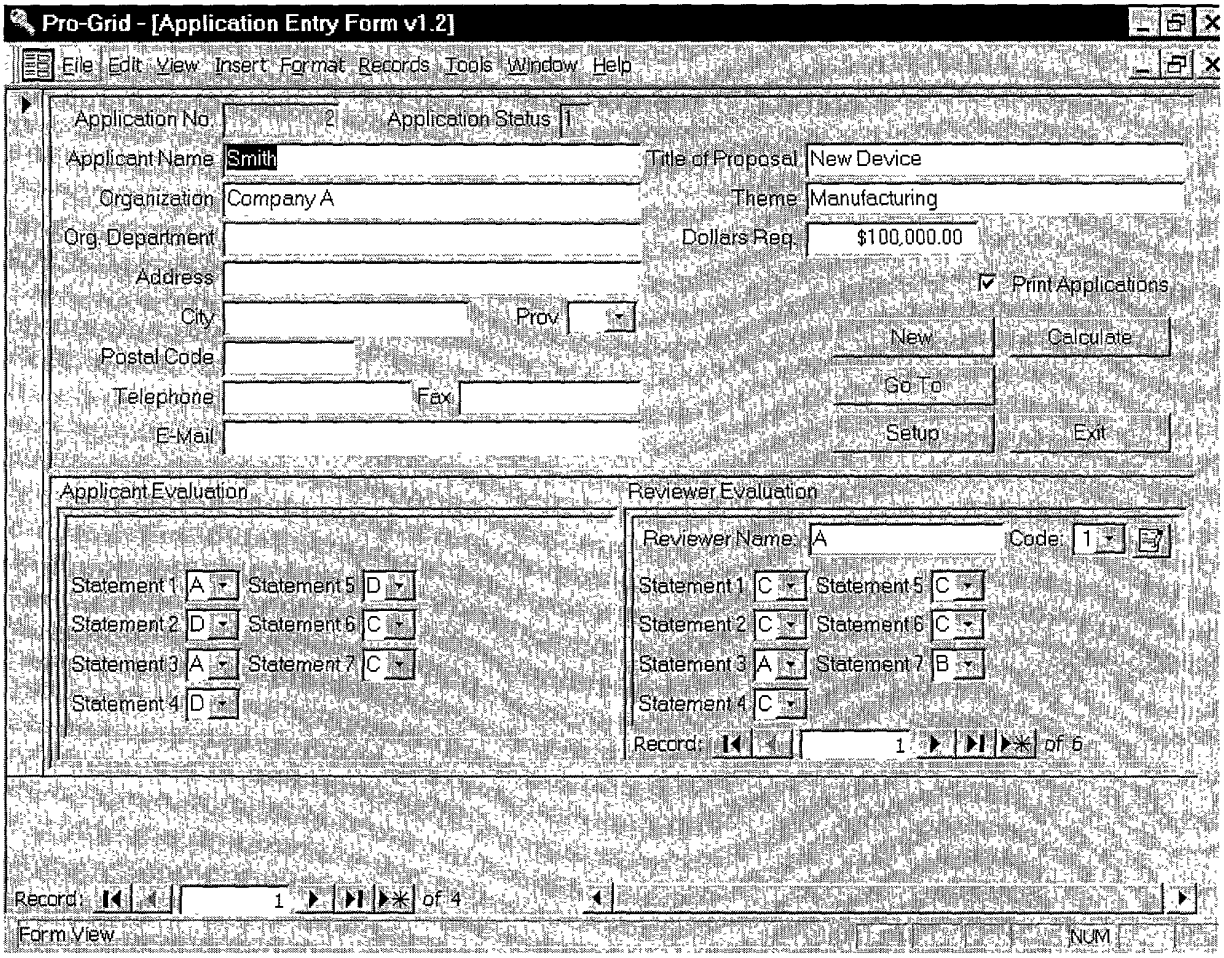

PERFORMANCE RATING- %
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
TECHNICAL FRAMEWORK
LEVEL OF VERIFICATION
EXCELLENCE OF PROJECT TEAM
COMMERCIAL READINESS
PROPRIETARY STREMGTH
TECHNOLOGICAL DURABILITY
MARKET CHARACTERISTICS
MARGIN AND PROFIT POTENTIAL
COMMERCIALIZATION CHANNELS

Fig. 6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File Edit View Insert Format Records Tools Window Help
Application No. 2
Application Status 1
Applicant Name Smith
Organization Company A
Org. Department
Address
City
Prov
Postal Code
Telephone
Fax
E-Mail
Title of Proposal New Device
Theme Manufacturing
Dollars Req. $100,000.00
Print Applications
New
Calculate
Go To
Setup
Exit
Applicant Evaluation
Statement 1 A
Statement 2 D
Statement 3 A
Statement 4 D
Statement 5 D
Statement 6 C
Statement 7 C
Reviewer Evaluation
Reviewer Name: A
Code: 1
Statement 1 C
Statement 2 C
Statement 3 A
Statement 4 C
Statement 5 C
Statement 6 C
Statement 7 B
Record: 1 of 6
Record: 1 of 4
Form View
NUM

FIG. 7

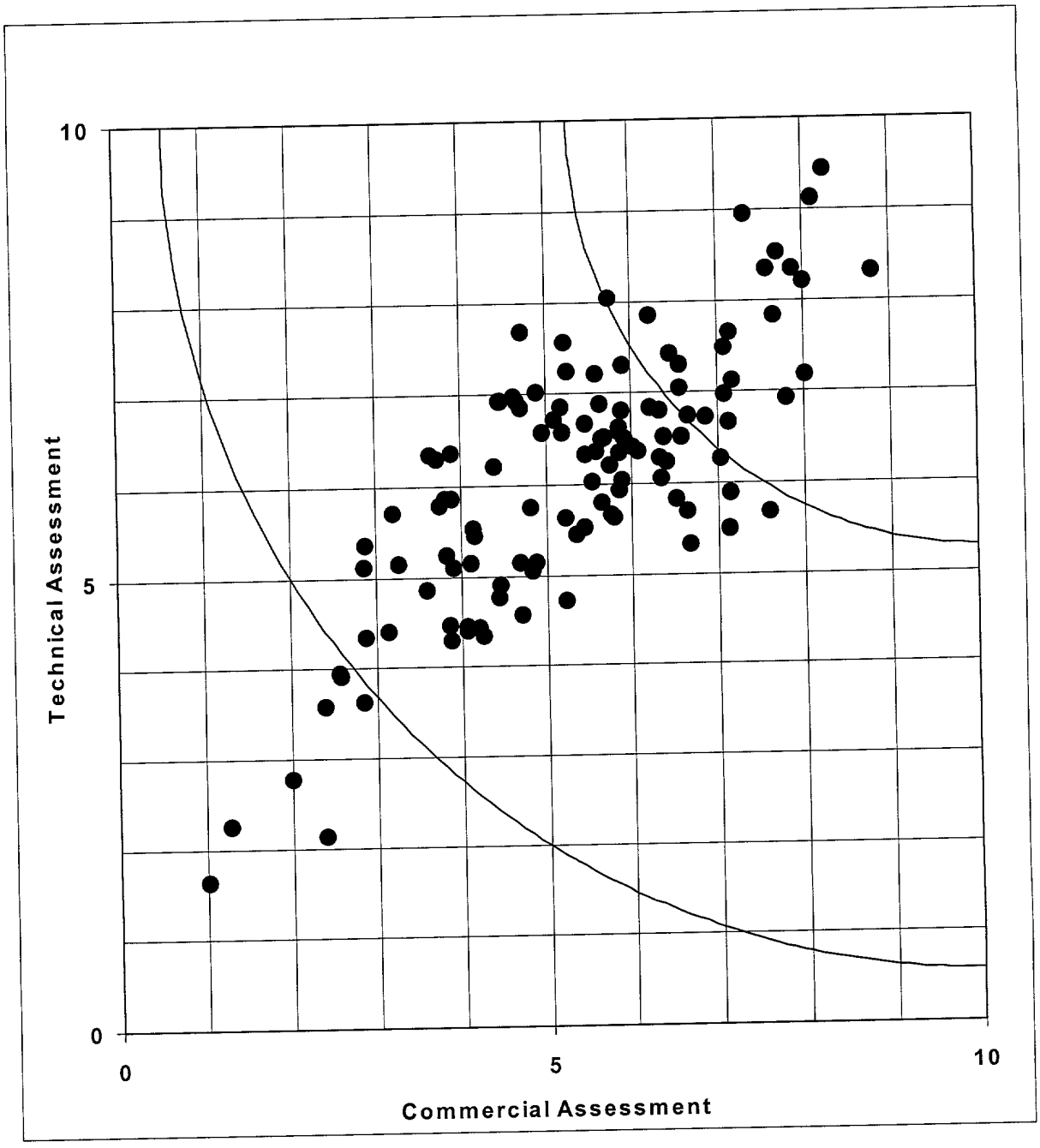


FIG. 8

1	2	3	4	5	6	7
No.	L	R	Xwt	Ywt	X	Y
1	B	1	0	1	0	1
2	B	1	0	1	0	1
3	C	2	0	1	0	2
4	C	2	0.2	0.8	0.4	1.6
5	B	1	0	1	0	1
6	A	0	0.2	0.8	0	0
7	A	0	0.2	0.8	0	0
8	B	1	0	1	0	1
9	B	1	0.2	0.8	0.2	0.8
10	B	1	0.2	0.8	0.2	0.8
11	B	1	0.5	0.5	0.5	0.5
12	B	1	0.2	0.8	0.2	0.8
13	A	0	0.2	0.8	0	0
14	B	1	0.8	0.2	0.8	0.2
15	A	0	1	0	0	0
16	D	3	0.2	0.8	0.6	2.4
17	D	3	0.2	0.8	0.6	2.4
18	C	2	0.8	0.2	1.6	0.4
19	B	1	0.2	0.8	0.2	0.8
20	B	1	0.2	0.8	0.2	0.8
21	B	1	0.2	0.8	0.2	0.8
22	B	1	1	0	1	0
23	B	1	1	0	1	0
24	B	1	1	0	1	0
25	C	2	0.8	0.2	1.6	0.4
26	C	2	0.2	0.8	0.4	1.6
27	B	1	0.8	0.2	0.8	0.2
28	C	2	1	0	2	0
29	C	2	1	0	2	0
30	A	0	1	0	0	0
31	C	2	1	0	2	0
32	B	1	0.8	0.2	0.8	0.2
33	C	2	1	0	2	0
34	B	1	0.8	0.2	0.8	0.2

8	9	10	11	12	13
No.	MS	Xwt	Ywt	X	Y
1	2	0	1	0	2
2	2	0	1	0	2
3	2	0	1	0	2
4	2	0.2	0.8	0.4	1.6
5	3	0	1	0	3
6	3	0.2	0.8	0.6	2.4
7	3	0.2	0.8	0.6	2.4
8	2	0	1	0	2
9	2	0.2	0.8	0.4	1.6
10	2	0.2	0.8	0.4	1.6
11	3	0.5	0.5	1.5	1.5
12	3	0.2	0.8	0.6	2.4
13	1	0.2	0.8	0.2	0.8
14	2	0.8	0.2	1.6	0.4
15	0	1	0	0	0
16	3	0.2	0.8	0.6	2.4
17	3	0.2	0.8	0.6	2.4
18	3	0.8	0.2	2.4	0.6
19	1	0.2	0.8	0.2	0.8
20	2	0.2	0.8	0.4	1.6
21	2	0.2	0.8	0.4	1.6
22	2	1	0	2	0
23	2	1	0	2	0
24	1	1	0	1	0
25	2	0.8	0.2	1.6	0.4
26	2	0.2	0.8	0.4	1.6
27	1	0.8	0.2	0.8	0.2
28	2	1	0	2	0
29	2	1	0	2	0
30	0	1	0	0	0
31	3	1	0	3	0
32	3	0.8	0.2	2.4	0.6
33	2	1	0	2	0
34	2	0.8	0.2	1.6	0.4

14	15	16	17	18	19
No.	R		code		MS
1	1	2	1	1	2
2	1	0	1	0	2
3	2	0	1	0	2
4	2	2	1	0	2
5	1	3	2	1	3
6	0	3	2	1	3
7	0	3	2	1	3
8	1	2	1	0	2
9	1	1	1	0	2
10	1	1	1	1	2
11	1	3	2	1	3
12	1	3	2	1	3
13	0	1	1	1	1
14	1	0	1	1	2
15	0	0	0	1	0
16	3	0	0	0	3
17	3	0	1	0	3
18	2	0	1	1	3
19	1	0	0	0	1
20	1	1	1	0	2
21	1	1	1	1	2
22	1	1	1	0	2
23	1	1	1	1	2
24	1	0	0	0	1
25	2	1	1	0	2
26	2	0	0	0	2
27	1	0	0	0	1
28	2	0	0	0	2
29	2	0	0	0	2
30	0	0	0	0	0
31	2	1	1	1	3
32	1	1	2	1	3
33	2	0	1	0	2
34	1	0	1	1	2

SUM		16.9	17.1	21.1	20.9		16.9	17.1	31.7	38.3
			Current Position						Future Position	
TOTAL	X=	21.1	X Plot =		4.2	X=	31.7	X Plot =		6.3
TOTAL	Y=	20.9	Y Plot =		4.1	Y=	38.3	Y Plot =		7.5

	Current	Future
TECHNICAL FRAMEWORK	0.5	0.67
LEVEL OF VERIFICATION	0.11	1
EXCELLENCE OF PROJECT TEAM	0.33	0.67
COMMERCIAL READINESS	0.22	0.78
PROPRIETARY STRENGTH	0.58	0.67
TECHNOLOGICAL DURABILITY	0.42	0.67
MARKET CHARACTERISTICS	0.47	0.6
MARGIN AND PROFIT POTENTIAL	0.42	0.42
COMMERCIALIZATION CHANNELS	0.5	0.83

Fig. 9

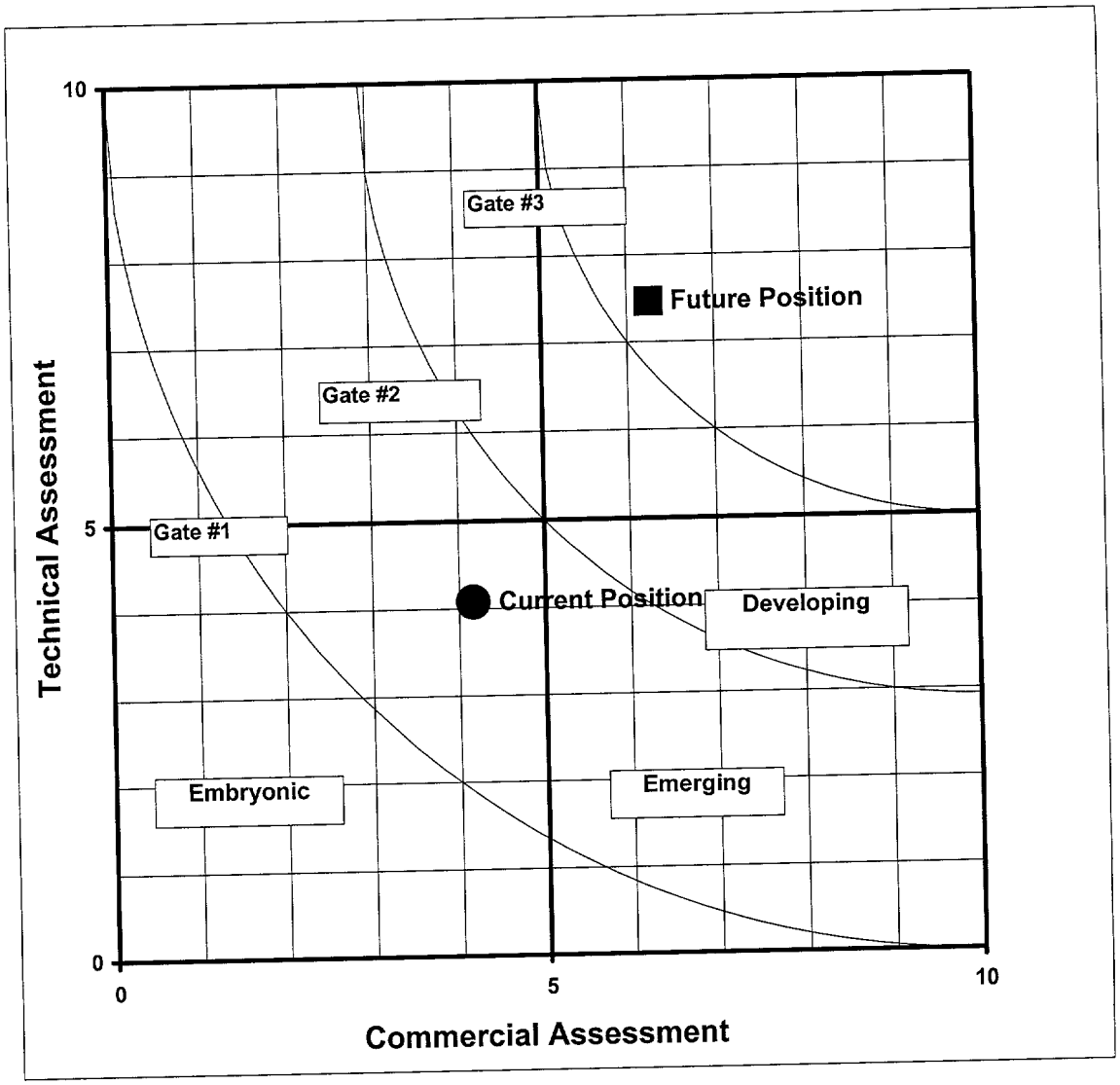
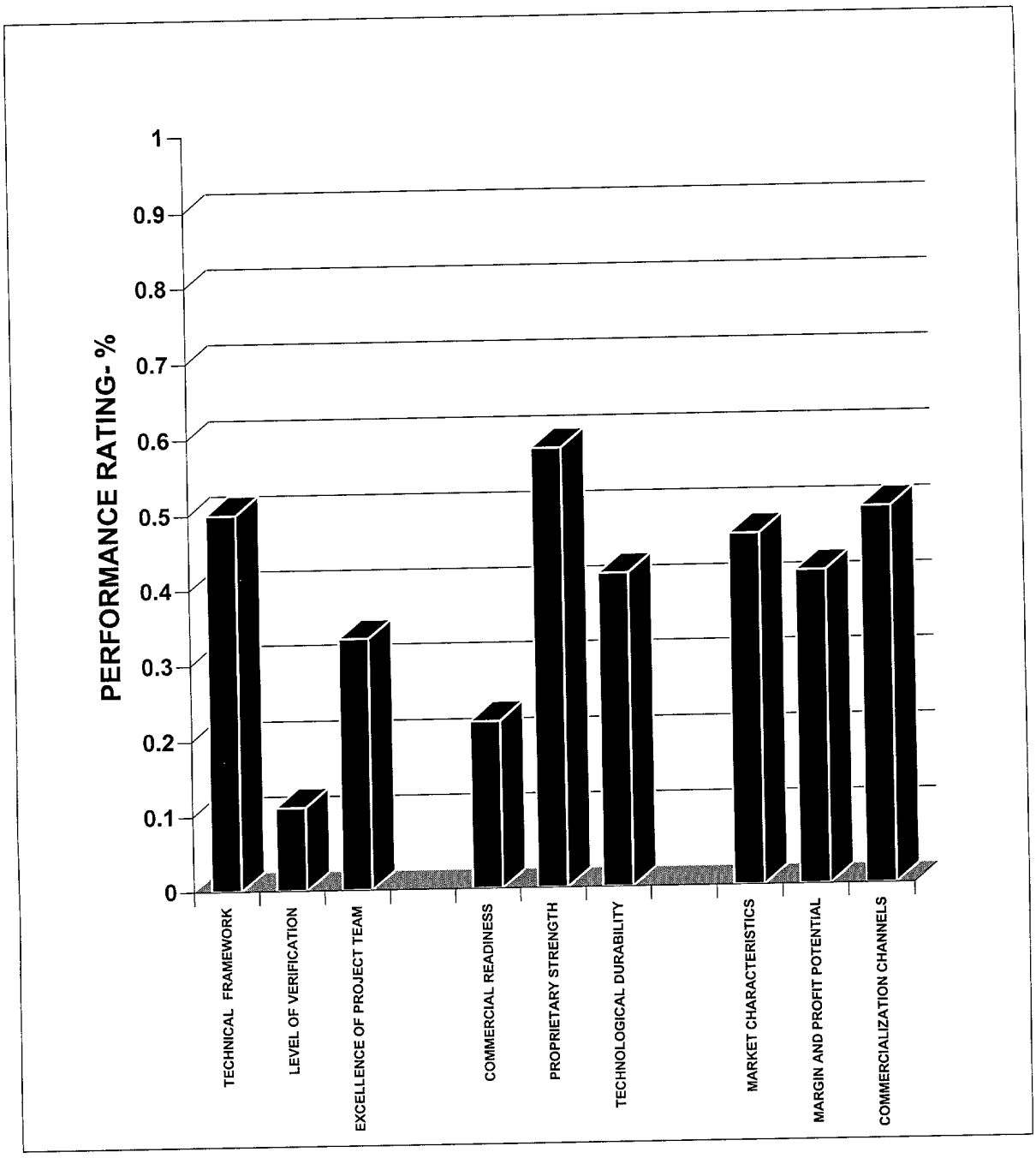

10
5
0
0
5
10
Technical Assessment
Commercial Assessment
Gate #3
Future Position
Gate #2
Gate #1
Current Position
Developing
Embryonic
Emerging

Fig. 10


PERFORMANCE RATING- %
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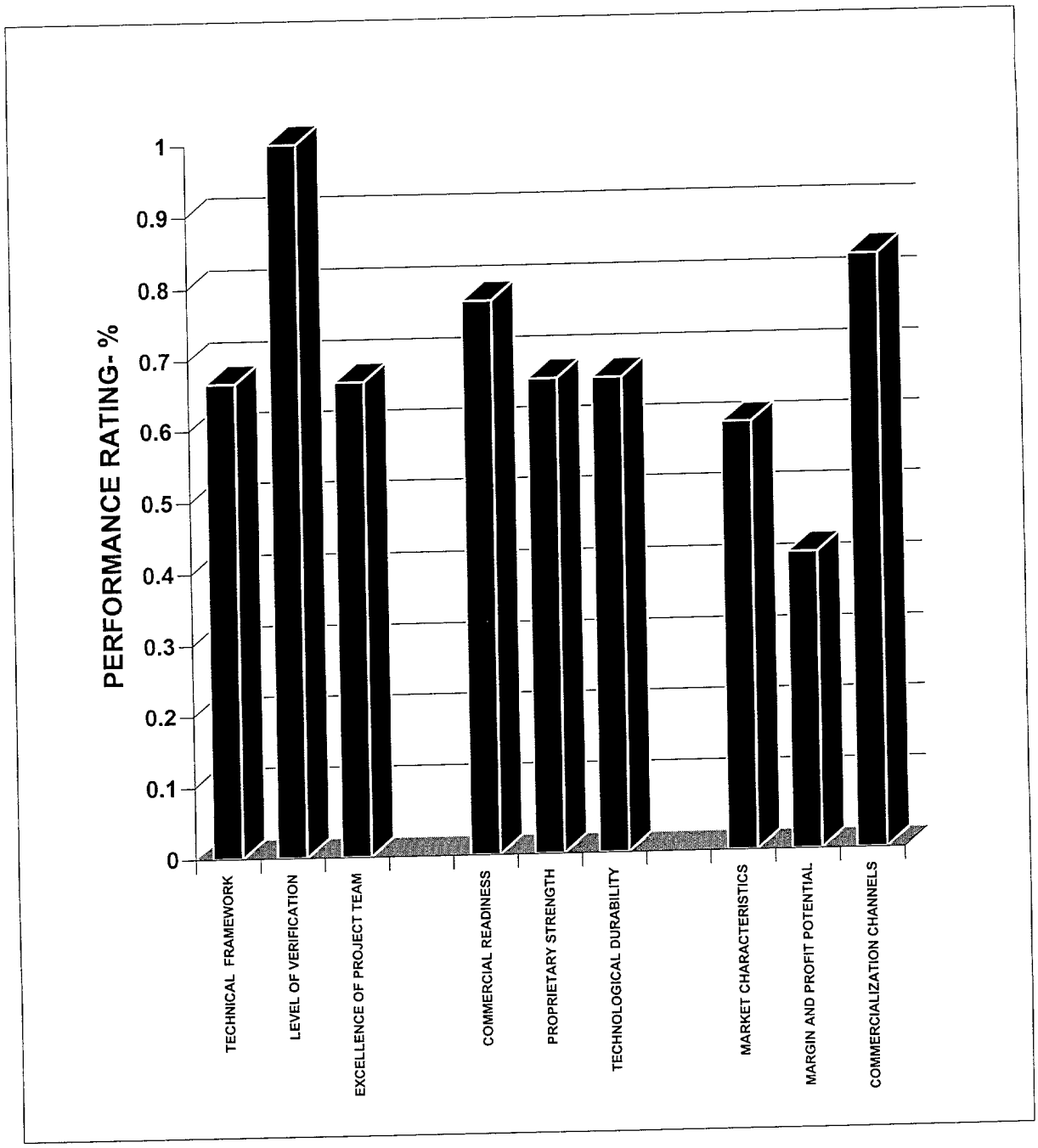
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
TECHNICAL FRAMEWORK
LEVEL OF VERIFICATION
EXCELLENCE OF PROJECT TEAM
COMMERCIAL READINESS
PROPRIETARY STRENGTH
TECHNOLOGICAL DURABILITY
MARKET CHARACTERISTICS
MARGIN AND PROFIT POTENTIAL
COMMERCIALIZATION CHANNELS

Fig. 11


PERFORMANCE RATING- %
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0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
TECHNICAL FRAMEWORK
LEVEL OF VERIFICATION
EXCELLENCE OF PROJECT TEAM
COMMERCIAL READINESS
PROPRIETARY STRENGTH
TECHNOLOGICAL DURABILITY
MARKET CHARACTERISTICS
MARGIN AND PROFIT POTENTIAL
COMMERCIALIZATION CHANNELS

Fig. 12